

# Technological adoption and on-farm mitigation: New findings from the Survey of Rural Decision Makers

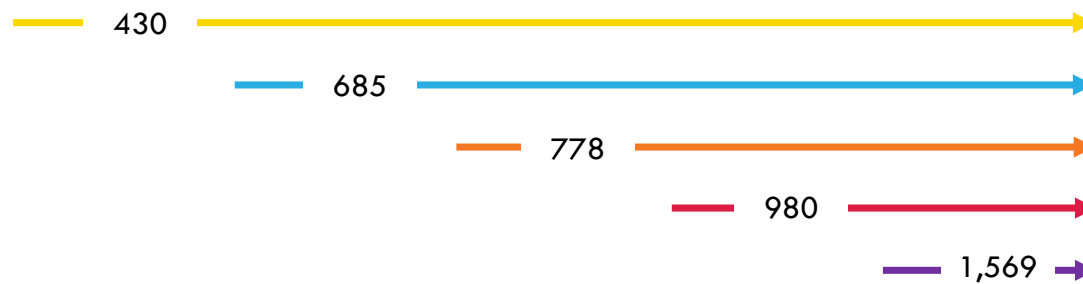
Pike Stahlmann-Brown

27 January 2026





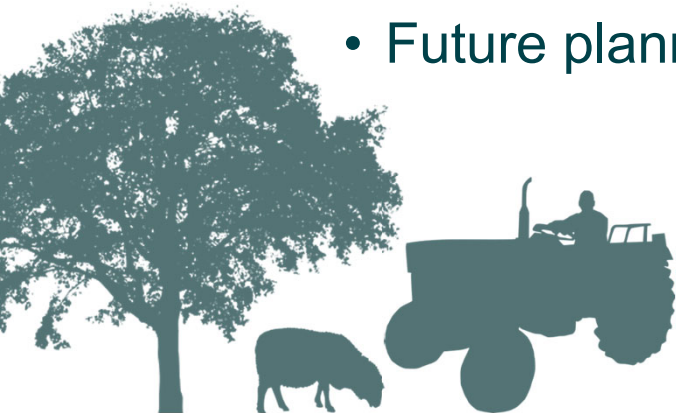






## Core topics

- Location, physical features
- Land use, land-use change
- Management priorities
- Profitability
- Values
- Well-being
- Demographics
- Future planning



## Focus topics

- Catchment groups
- Irrigation
- Climate and weather
- Technological adoption
- Gene technologies
- Regulatory environment
- Farm advisors

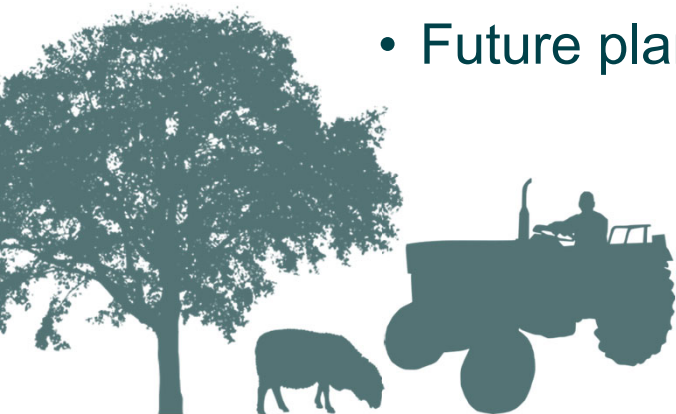


## Core topics

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- **Farm advisors**



# Survey 2025

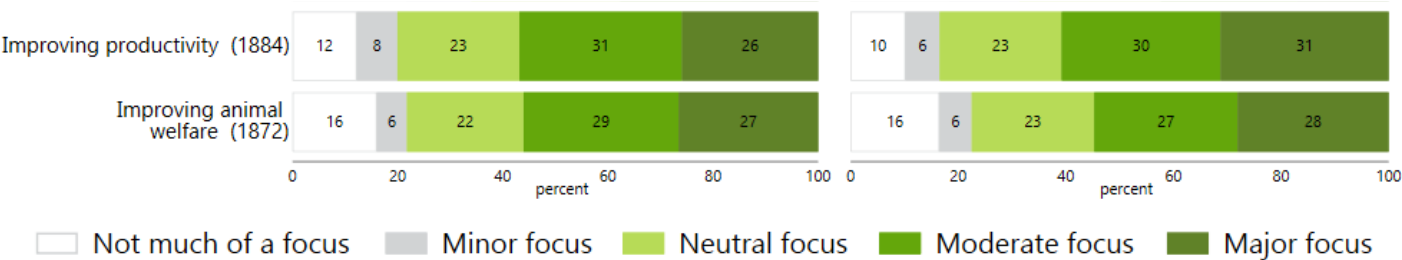
- Conducted online Our database + Promoted by Beef+Lamb NZ, DairyNZ, FFA, HortNZ, & NAIT
- Unique URL
- Charitable donations, prize draws
- 1,913 Commercial respondents (4.4%)
- 881 lifestyle respondents (1.3%)
- 13 cities + 51 of 53 districts
- 64-year old male of European/Pākeha ancestry with a diploma in agriculture
- Survey weights based on region & industry



# Management priorities

Past 2 years

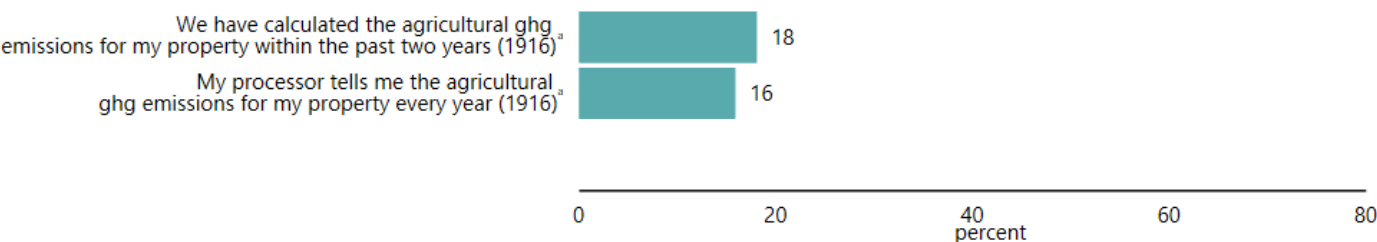
Next 2 years



Number of respondents in parentheses.  
Proportions have been weighted by primary activity and region.  
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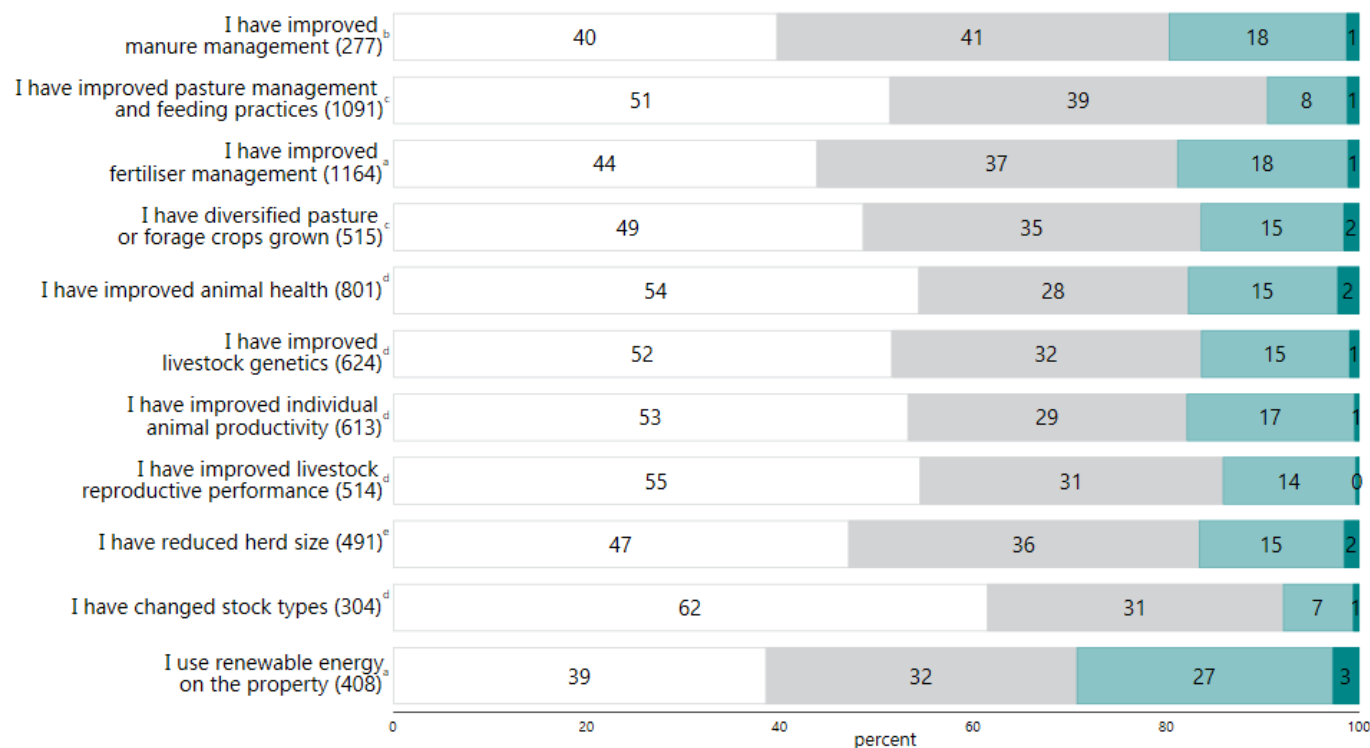


# Current adoption of GHG technologies



Number of respondents in parentheses.  
Proportions have been weighted by primary activity and region.  
a: All commercial operations  
b: Operations with dairying activities.  
c: Operations with sheep, beef, prime beef cattle, dairying, grazing, deer farming, pig farming, or other livestock farming activities.  
d: Operations with sheep and beef, prime beef cattle, dairying, deer farming, pig farming, or other livestock farming activities.  
e: Operations with sheep and beef, prime beef cattle, dairying, deer farming, or pig farming activities.

# Current adoption of GHG technologies



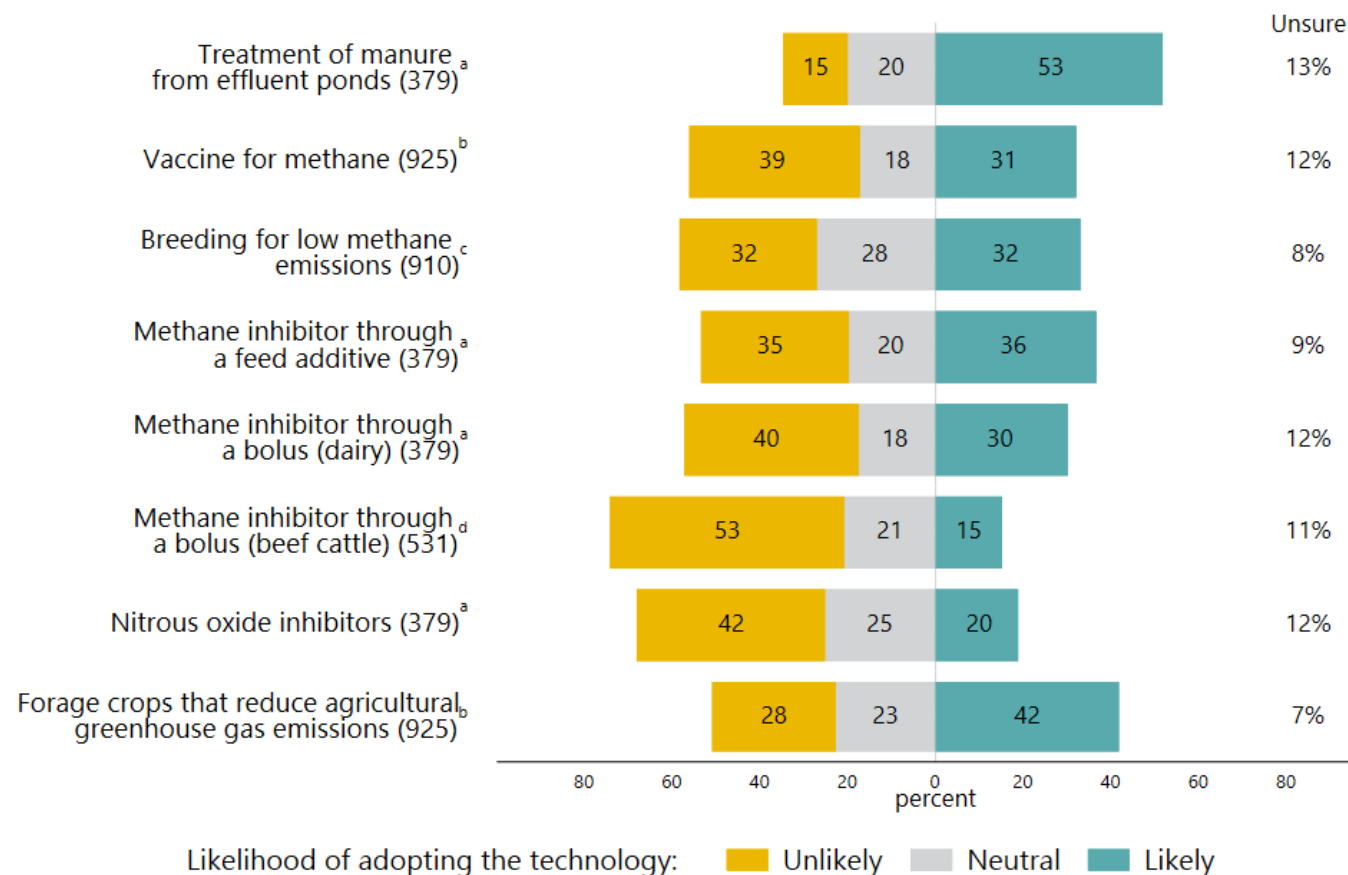
Extent that reducing agricultural greenhouse gas emissions was a motivation for activities:

☐ Not a motivation
 ☐ Minor motivation
 ☐ Major motivation
 ☐ Only motivation

Number of respondents in parentheses.  
 Proportions have been weighted by primary activity and region.  
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# Anticipated future adoption

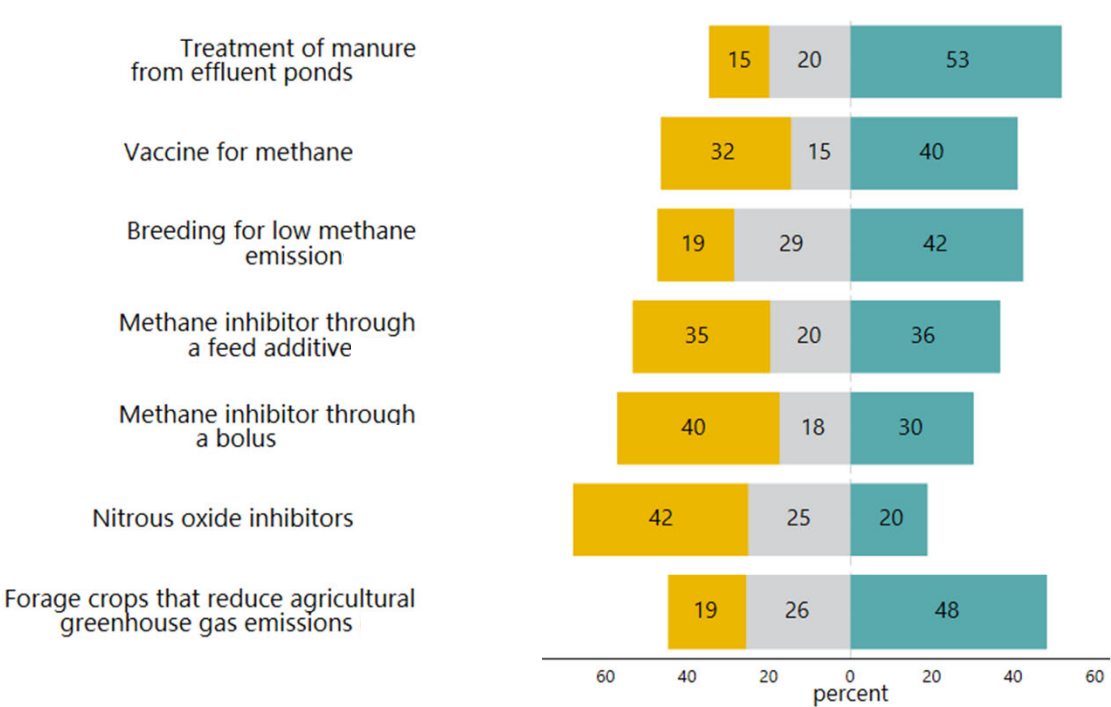


Number of respondents in parentheses.  
Proportions have been weighted by primary activity and region.  
a: Operations with dairying activities.  
b: Operations with sheep, beef, prime beef cattle, dairying, or deer farming activities.  
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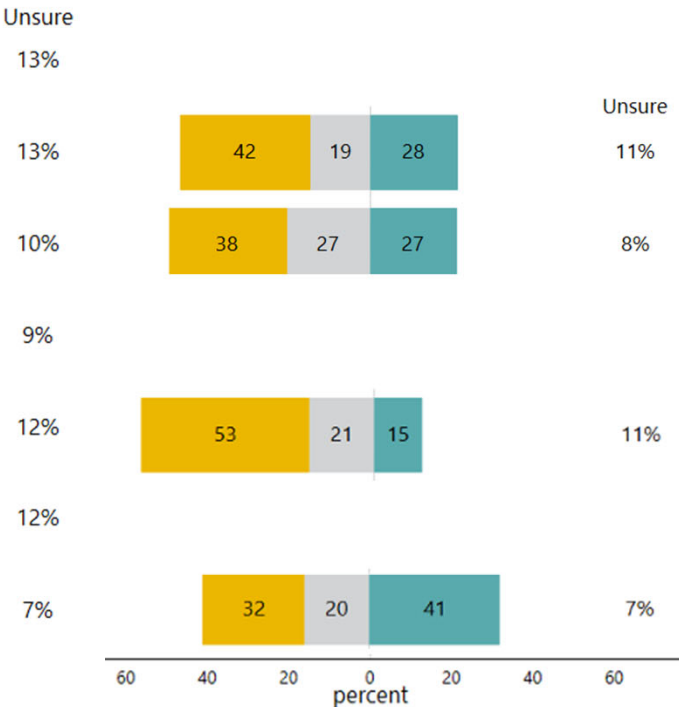
# Anticipated future adoption

## Dairy



Likelihood of adopting the technology: ■ Unlikely ■ Neutral ■ Likely

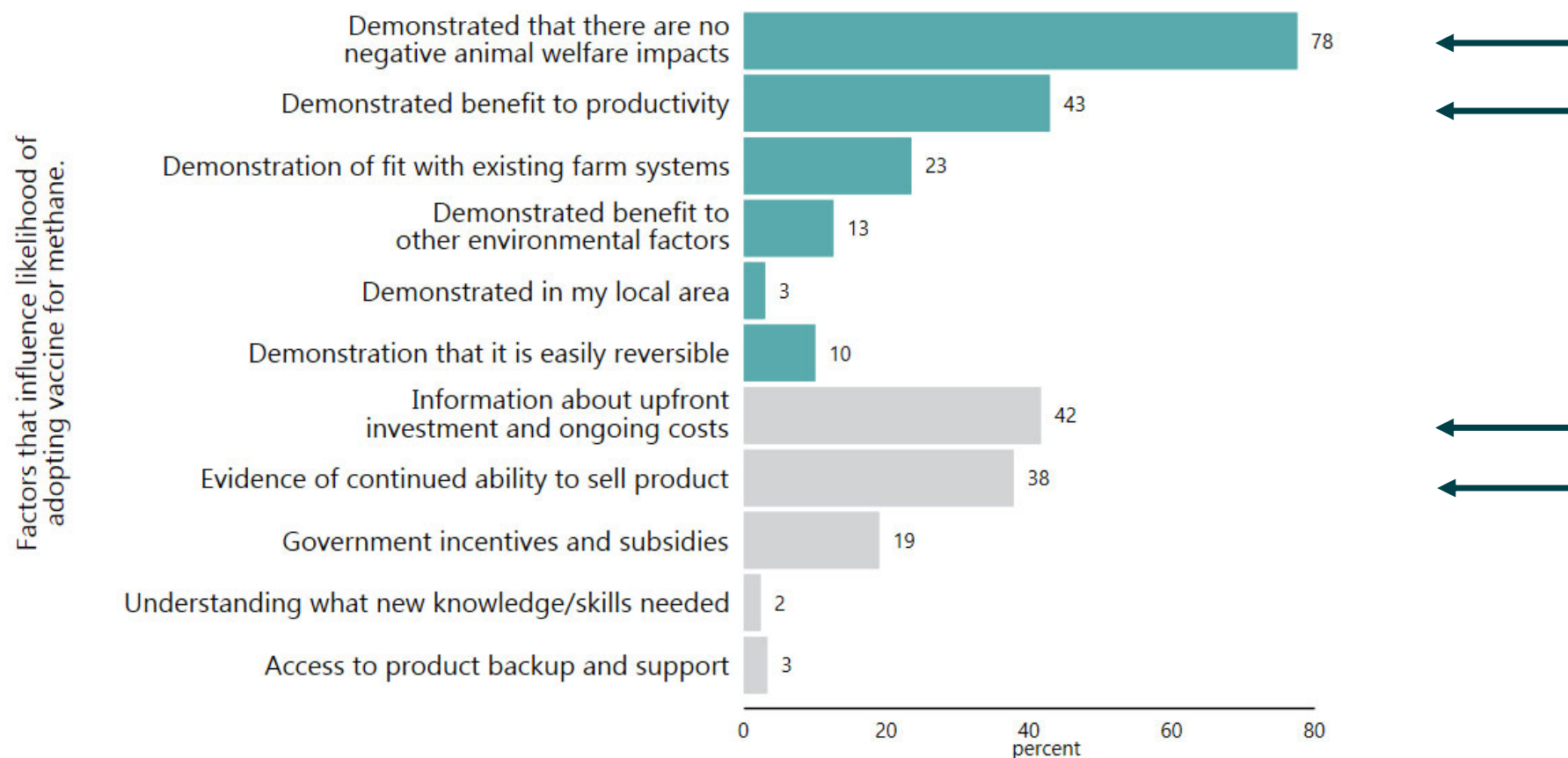
## Sheep & beef



Number of respondents in parentheses.  
Proportions have been weighted by primary activity and region.  
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# Future adoption of GHG technologies

## Vaccines



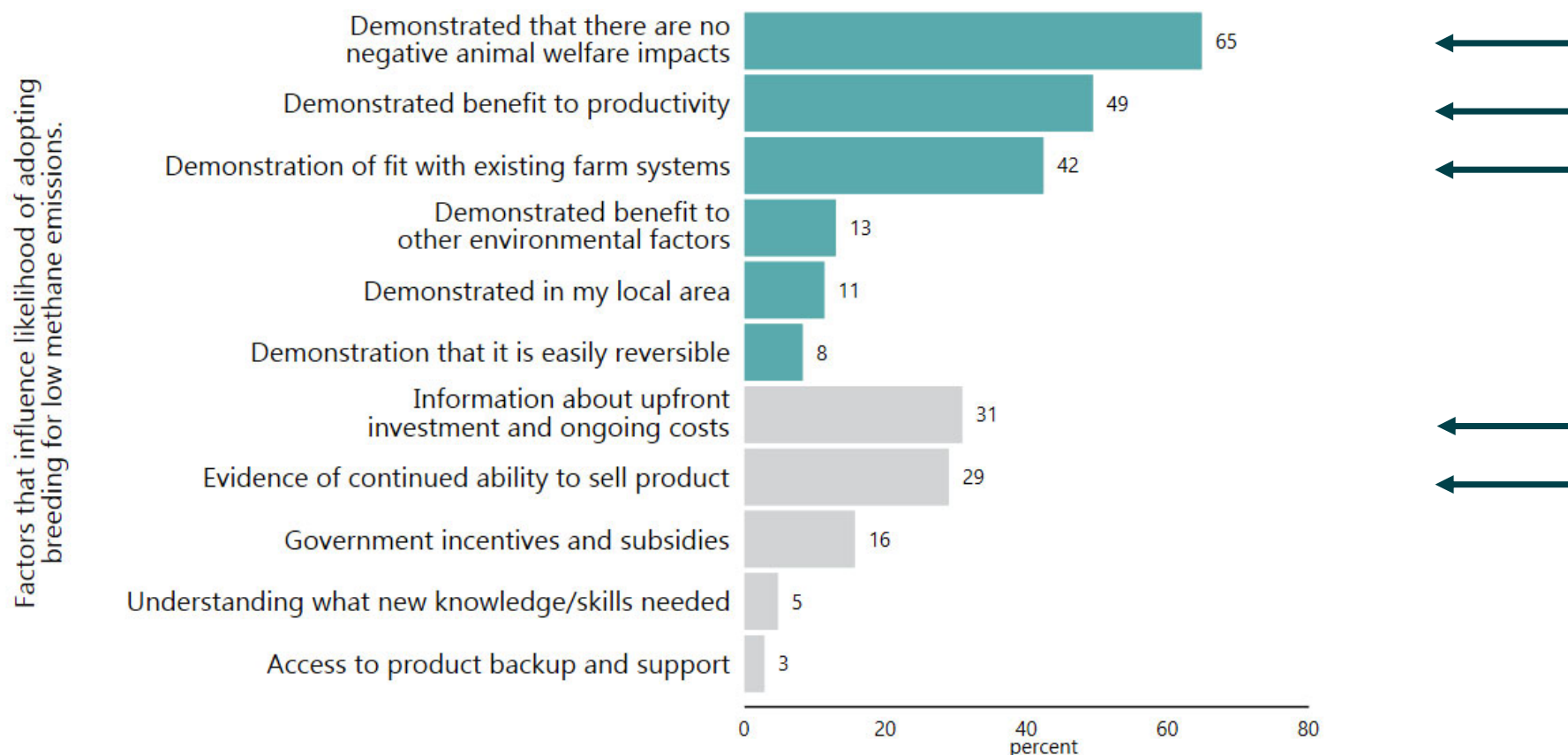
Proportions have been weighted by primary activity and region.  
Among respondents who are neutral or unlikely to adopt the technology.  
Among 332 operations with sheep, beef, prime beef cattle, dairying, or deer farming activities.

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# Future adoption of GHG technologies

## Breeding

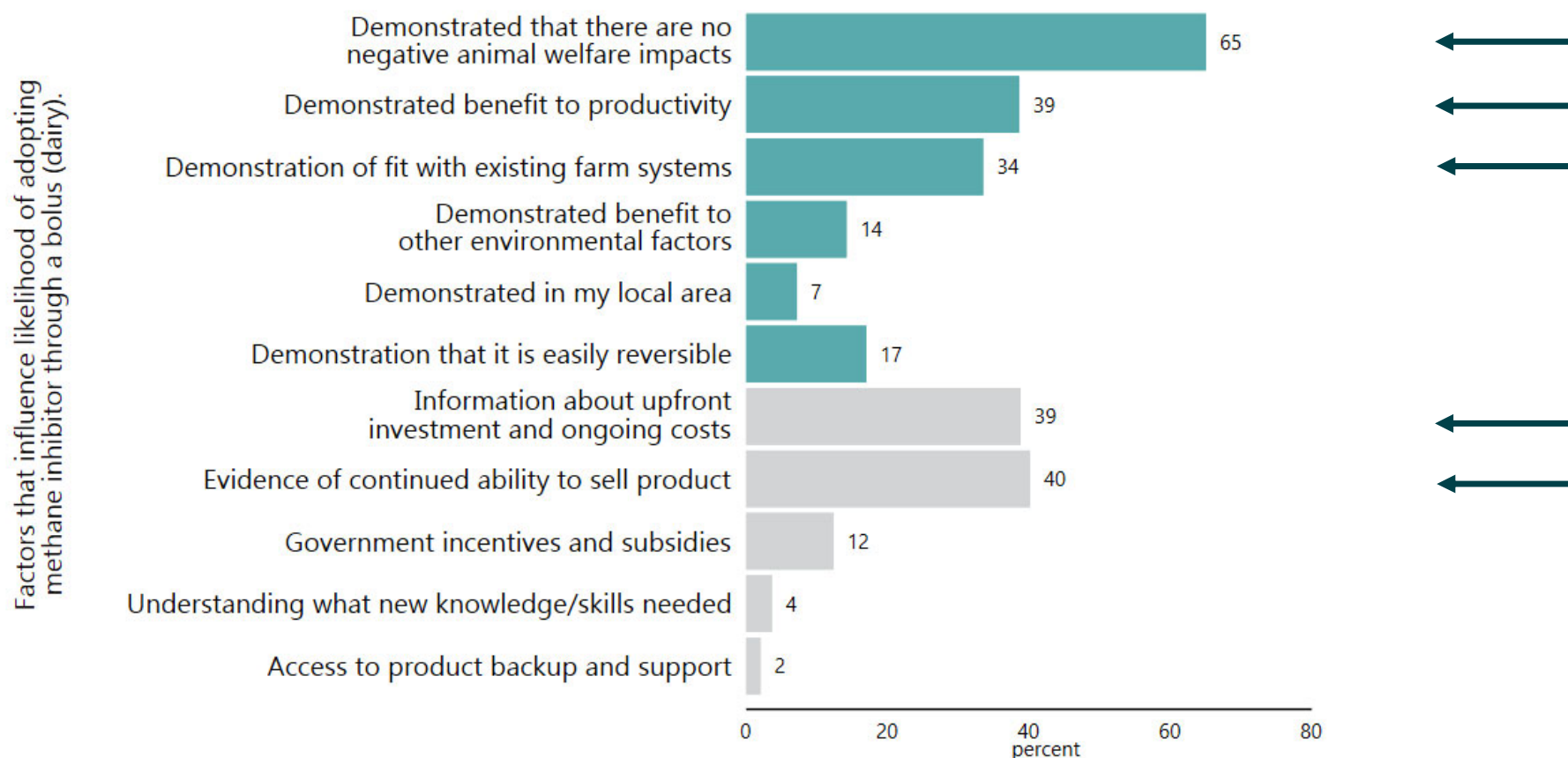


Proportions have been weighted by primary activity and region.  
Among respondents who are neutral or unlikely to adopt the technology.  
Among 339 operations with sheep, beef, prime beef cattle, or dairying activities.

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# Future adoption of GHG technologies

## Bolus (dairy cattle)

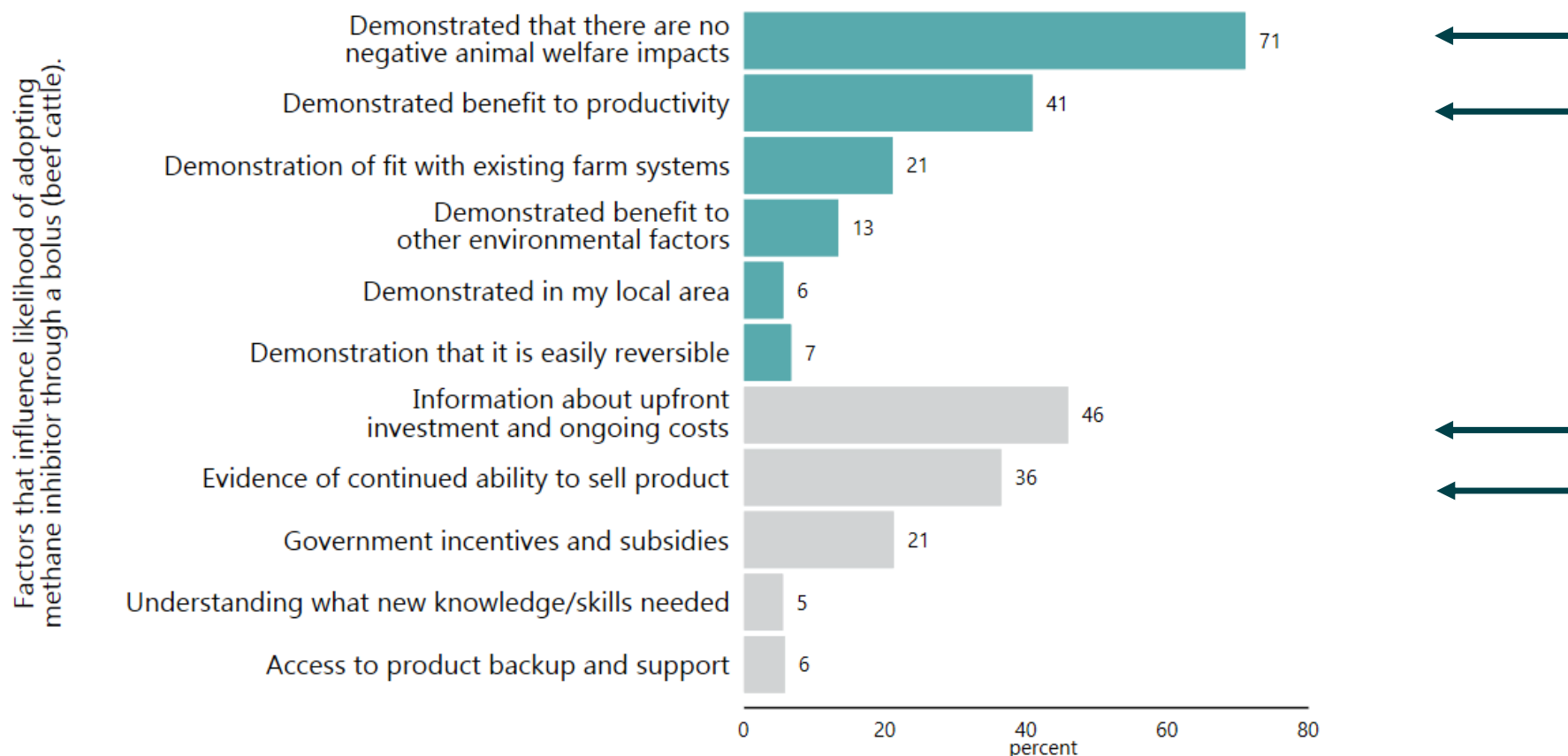


Proportions have been weighted by primary activity and region.  
Among respondents who are neutral or unlikely to adopt the technology.  
Among 108 operations with dairying activities.

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# Future adoption of GHG technologies

## Bolus (beef cattle)



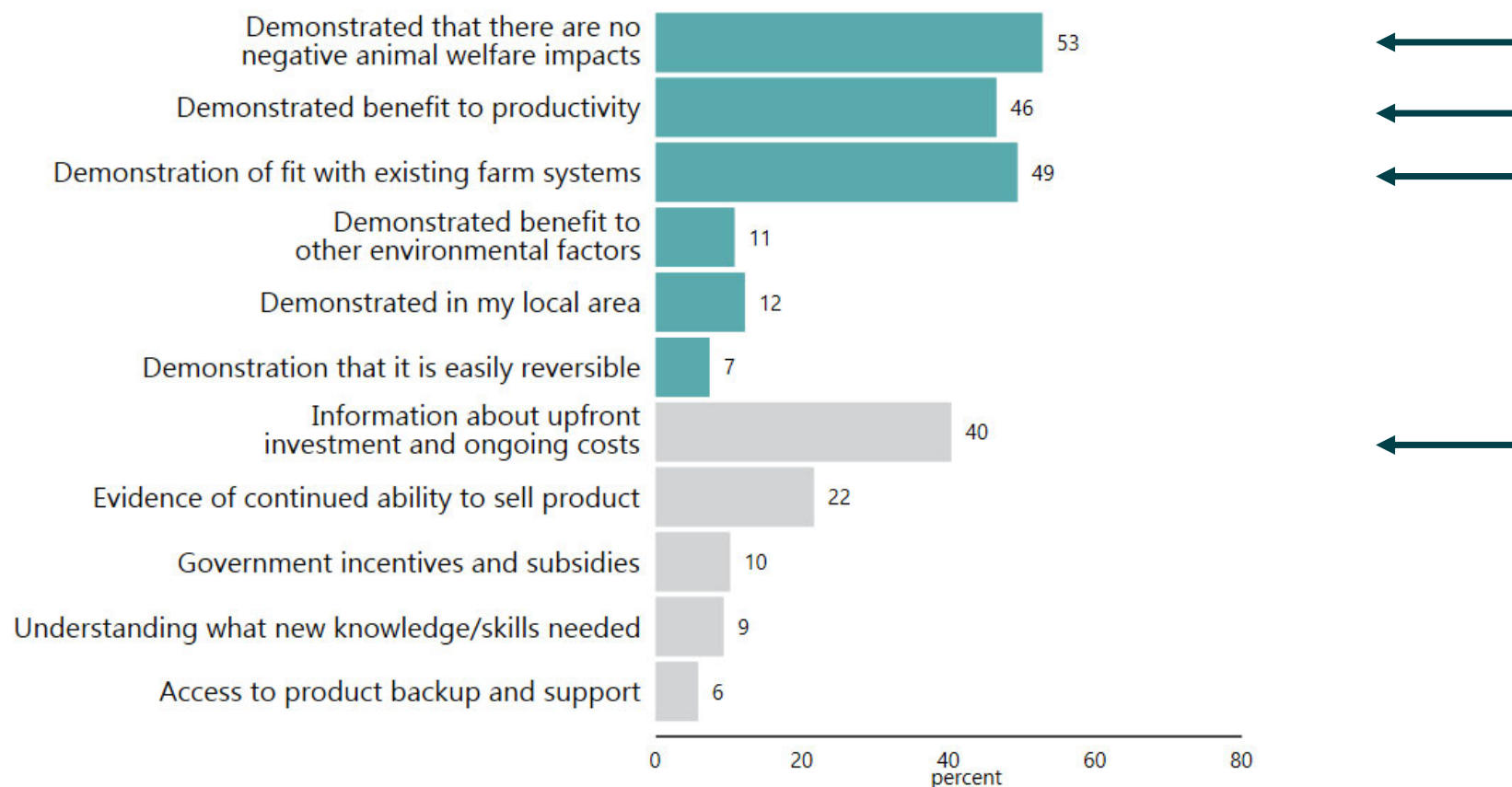
Proportions have been weighted by primary activity and region.  
Among respondents who are neutral or unlikely to adopt the technology.  
Among 277 operations with dairying activities.

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# Future adoption of GHG technologies

## Forage crops

Factors that influence likelihood of adopting forage crops that reduce agricultural greenhouse gas emissions.



Proportions have been weighted by primary activity and region.  
Among respondents who are neutral or unlikely to adopt the technology.  
Among 263 operations with dairying activities.

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# Future adoption of GHG technologies

## Considerations

### ***Most common considerations***

No negative animal welfare impacts

Productivity benefits

Upfront investment and ongoing costs

Fit within farm system

Continue ability to sell product

Government incentives and subsidies

Other environmental benefits

Reversibility

Demonstrated locally

Understanding skills needed

Product backup and support

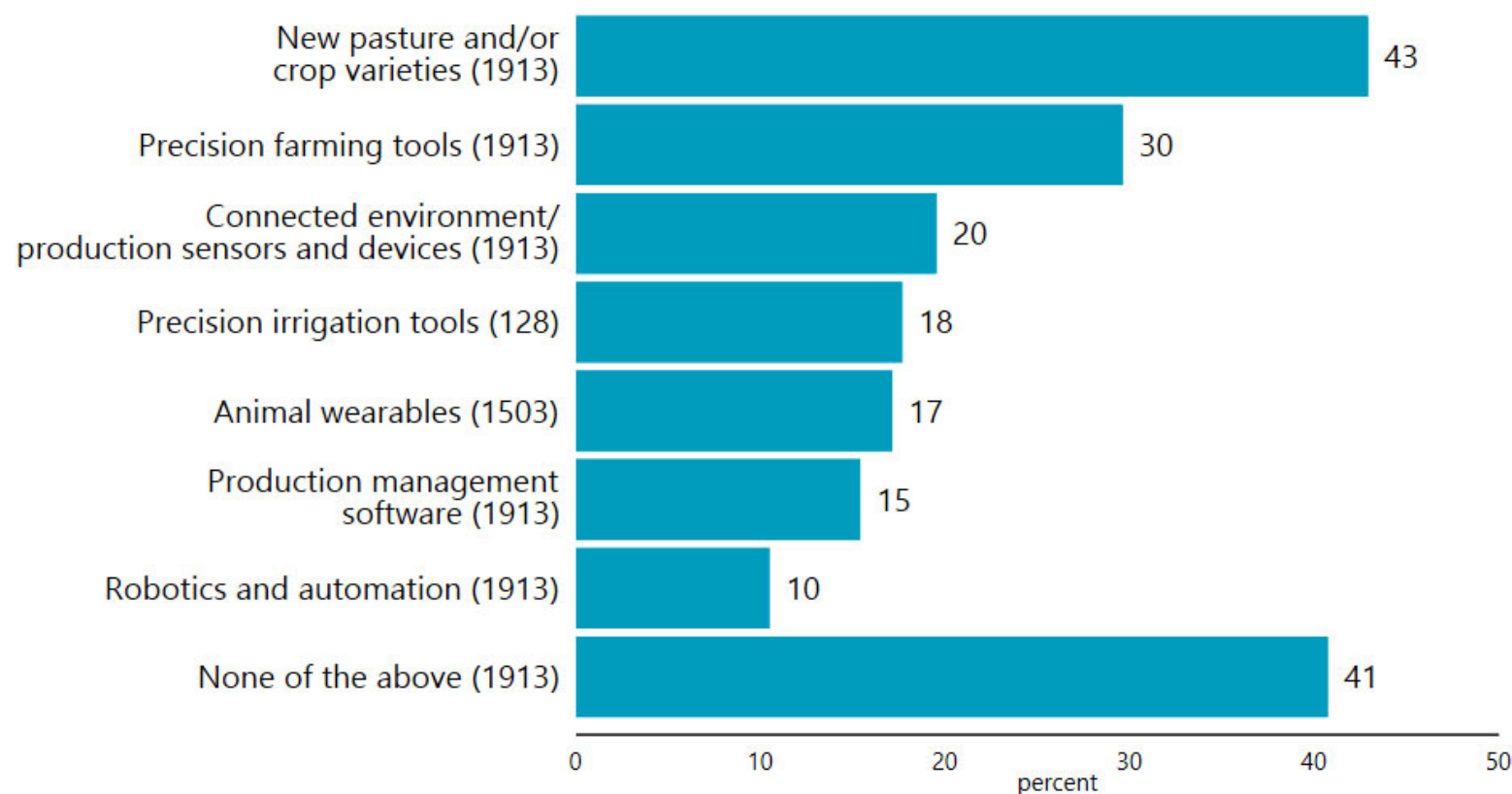
### ***Least common considerations***





# Current adoption of other technologies

Rural Decision Makers  
SURVEY

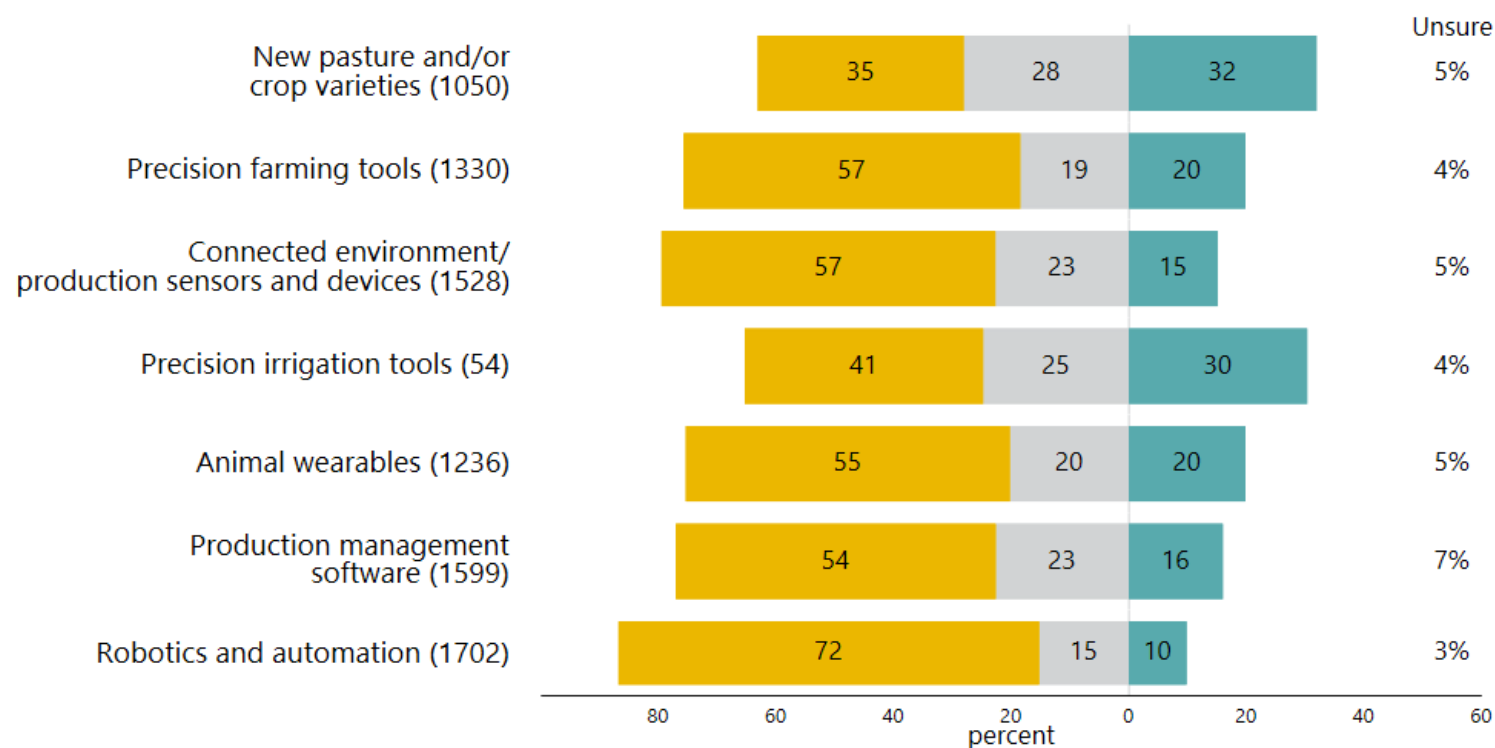


Number of respondents in parentheses.  
Proportions have been weighted by primary activity and region.  
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# Current adoption of other technologies

	Sheep & beef	Dairy	Arable	Hort	Forestry
New pasture/crop varieties	38%	65%	56%	34%	28%
Precision farming tools	24%	43%	54%	25%	25%
Connected sensors and devices	12%	26%	32%	45%	2%
Animal wearables	11%	35%	-	-	-
Production management software	13%	24%	32%	12%	7%
Robotics and automation	2%	37%	8%	8%	8%
None of the above	49%	14%	28%	37%	59%

# Anticipated future adoption



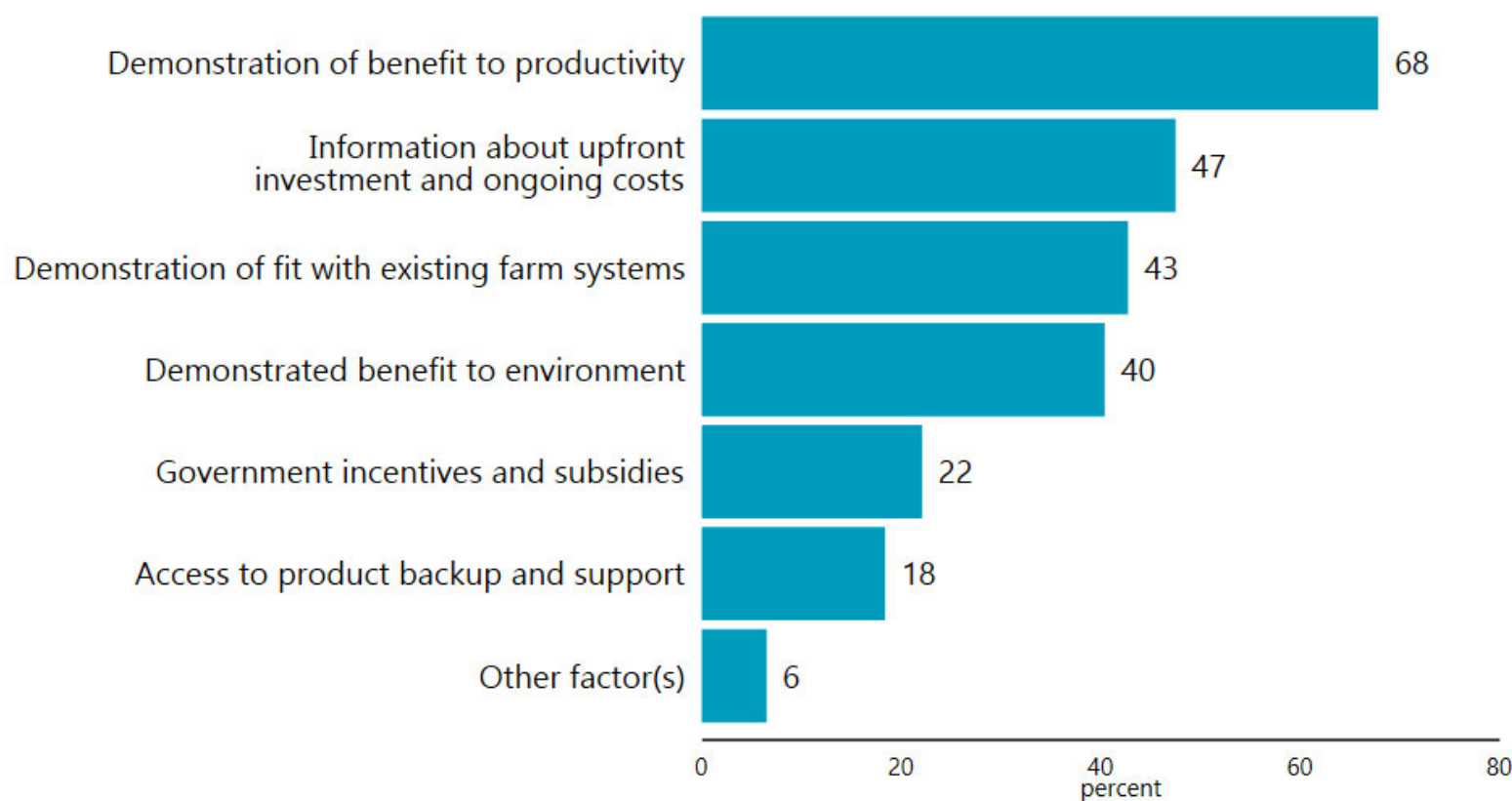
Likelihood of adopting technology over the next 10 years:

Unlikely Neutral Likely

Number of respondents in parentheses.  
Among commercial operators who are not currently using the technology.  
Proportions have been weighted by primary activity and region.

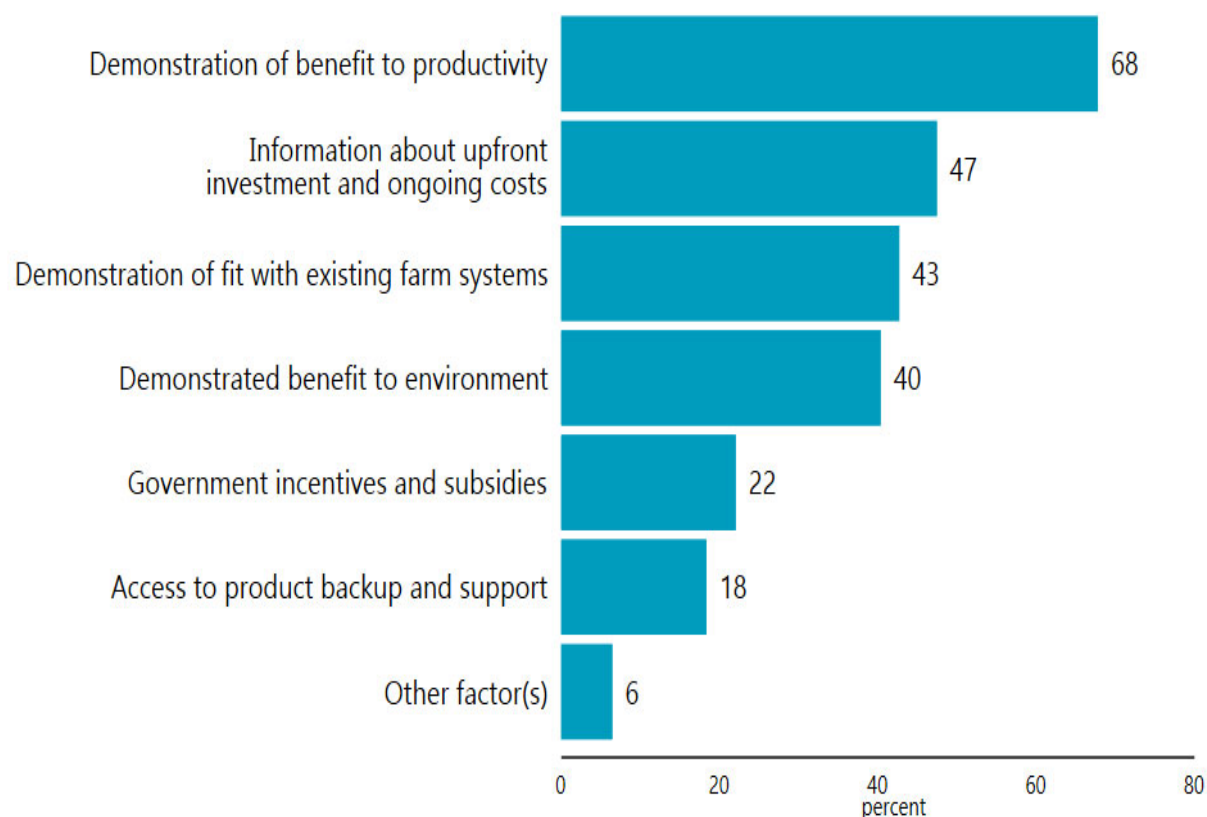
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# Anticipated future adoption Considerations



Among 1742 commercial operators.  
Proportions have been weighted by primary activity and region.  
Survey of Rural Decision Makers 2025 © Bioeconomy Science Institute

# Anticipated future adoption Considerations



Among 1742 commercial operators.  
Proportions have been weighted by primary activity and region.  
Survey of Rural Decision Makers 2025 © Bioeconomy Science Institute

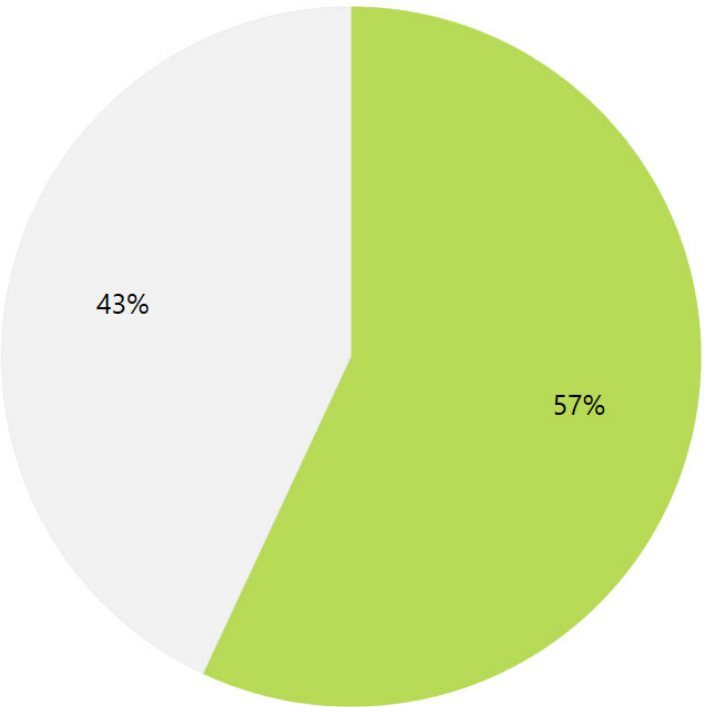
## ***Most common considerations***

No negative animal welfare impacts  
Productivity benefits  
Upfront investment and ongoing costs  
Fit within farm system  
Continue ability to sell product  
Government incentives and subsidies  
Other environmental benefits  
Reversibility  
Demonstrated locally  
Understanding skills needed  
Product backup and support

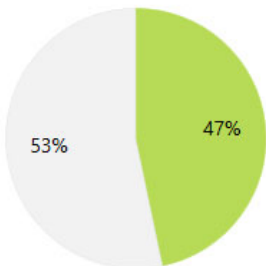
## ***Least common considerations***



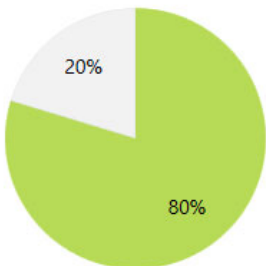
# Advice from professional farm advisors



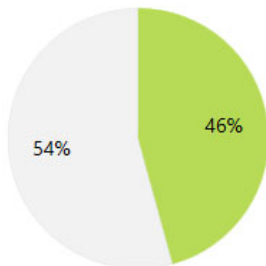
Among 2708 respondents.  
Proportions have been weighted by primary activity and region.  
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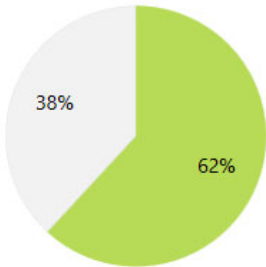
Sheep and beef (985)



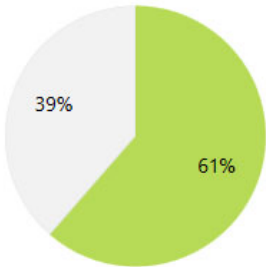
Dairying (383)



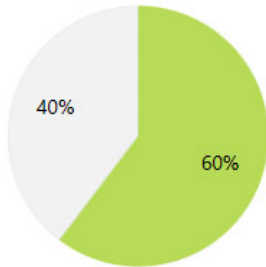
Other livestock (73)



Arable (67)



Horticulture (168)



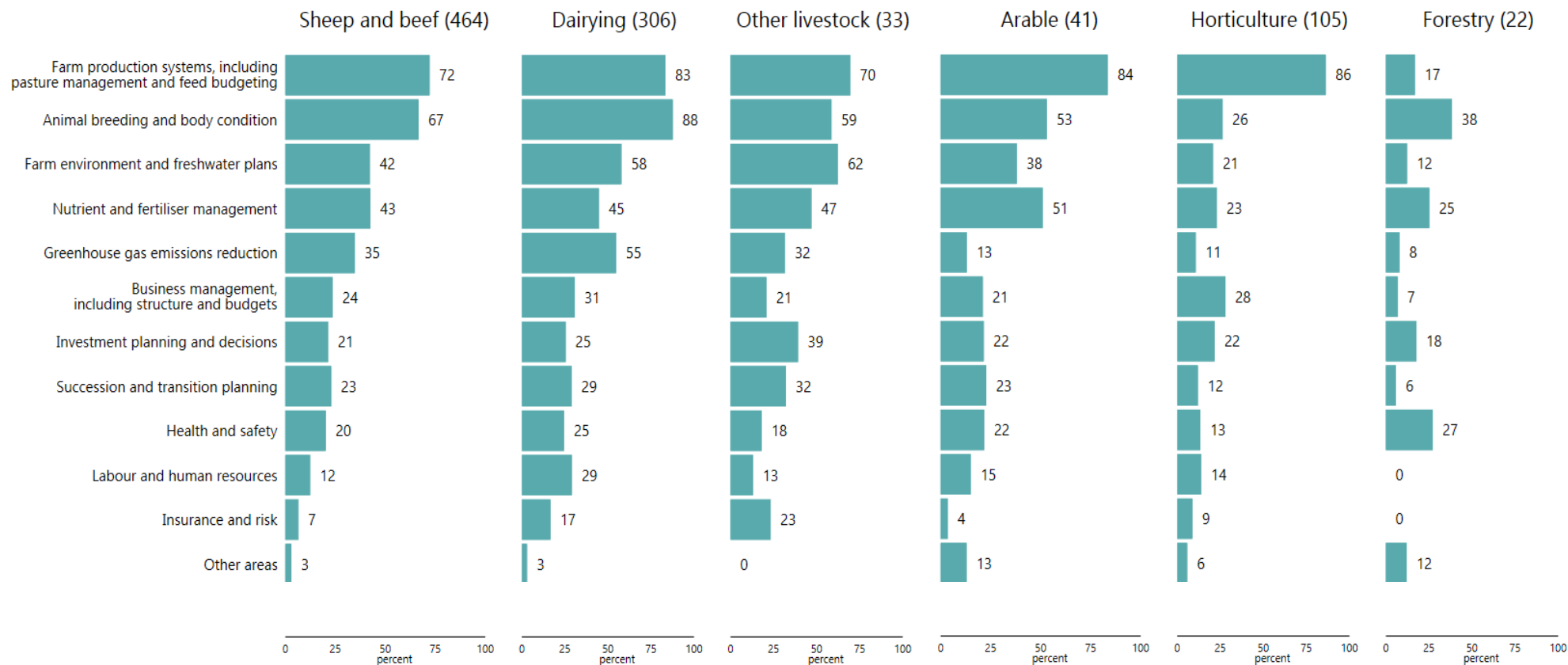
Forestry (38)

Sought advice from a  
professional farm advisor:  
■ Yes  
■ No

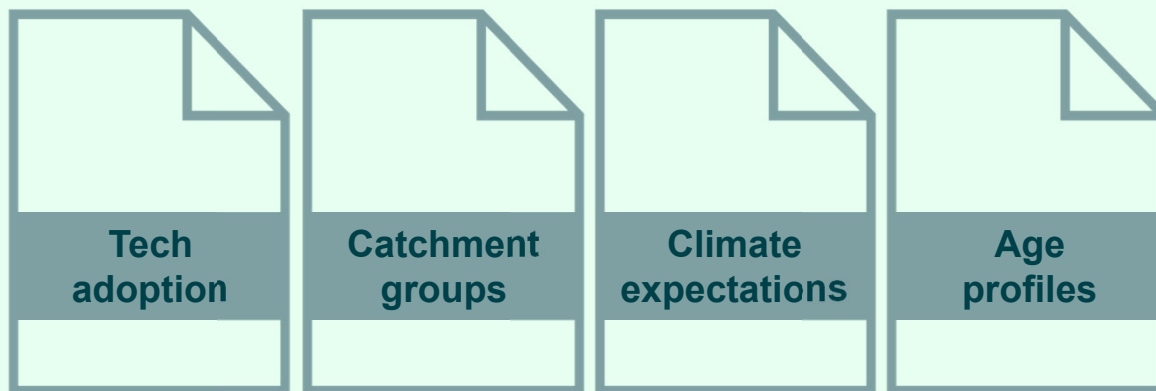
Number of respondents in parentheses.  
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# Advice from professional farm advisors

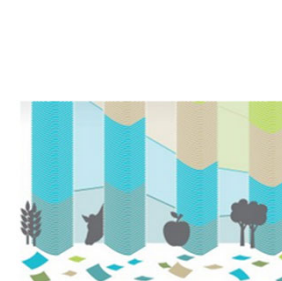
Rural Decision Makers  
SURVEY



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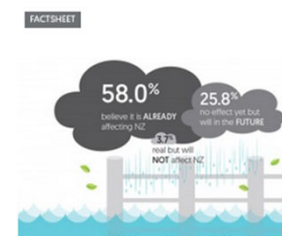
#### Key results sheet 1: Rural regulation

The 2023 survey include three questions about rural regulation, identified in 2021 as a significant cause of stress.



#### Key results sheet 4: Environmental outcomes

Farmers, foresters, and growers were asked to compare their environmental performance of their operations with the environmental performance of other farmers, foresters, and growers.



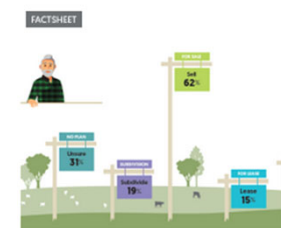
#### Information sheet: Impacts from climate change

Most survey respondents believe climate change is real and already affecting NZ.



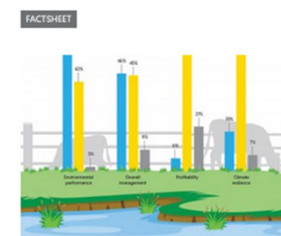
#### Key results sheet 2: Sources of advice

Farmers, foresters, and growers were asked to identify who was a potential source of advice for their operation, how much they trusted them.



#### Key results sheet 5: Future intentions

We asked farmers, foresters, and growers about their retirement plans.



#### Information sheet: Restricting stock from waterways

Dairy and beef farmers are taking measures to restrict stock from waterways.



#### Key results sheet 3: Land-use change

Farmers, foresters, and growers were asked whether any of their current land uses were new in the last two years. They were also asked whether they were stressed or not stressed.



#### Information sheet: Rural well-being

We used the WHO-5 Index to evaluate the well-being of commercial farmers, foresters and growers and lifestyle block owners.



#### Information sheet: Aspirations for the land

Respondents were asked to describe the aspirations for their land using 3-5 short phrases.